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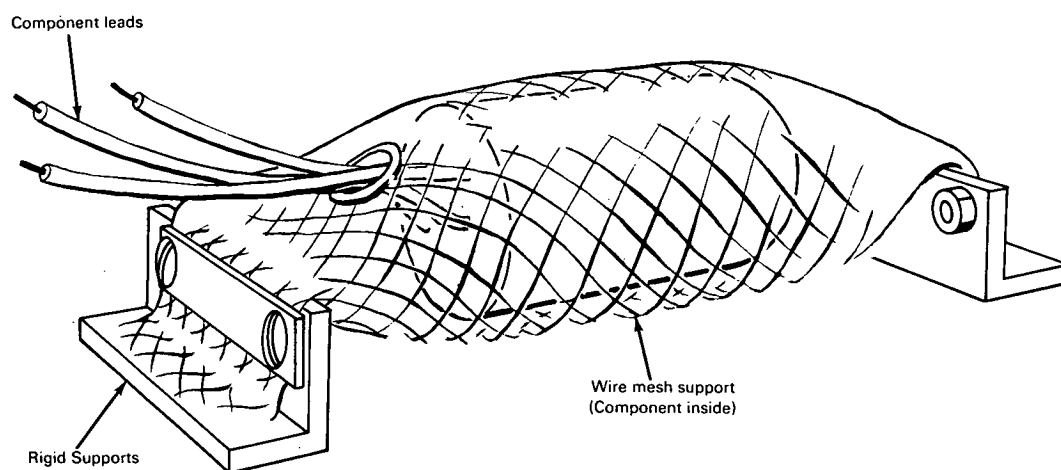
Brief 65-10216

NASA TECH BRIEF



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Wire Mesh Isolator Protects Sensitive Electronic Components



The problem: To protect sensitive equipment components from vibration, mechanical shock, combined vibration and shock with steady-state acceleration, rf interference, and thermal damage degradation.

The solution: An isolator of wire mesh or braid completely encloses the sensitive component and is mounted in a manner that takes advantage of its flexible characteristics.

How it's done: The component (an electron tube, for example) is inserted into an appropriate length of wire mesh or braid. A hole is cut in the mesh and the component leads are brought out through it. Clips are attached to each end of the mesh to hold the component properly in place. The ends of the mesh are bent and holes formed in them for mounting bolts. The isolator is now complete and is bolted to rigid supports. Mechanical shock or vibration will cause flexure of the

ends of the mesh, thus isolating the component from damage. The wire mesh acts as an effective screen to shield the component from rf interference and, because the component is in intimate contact with the wire mesh, it also acts as an efficient heat sink.

Notes:

1. By use of other configurations of wire mesh, a variety of sensitive components could be similarly protected.
2. This invention should be of general interest in electronic packaging.
3. Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Goddard Space Flight Center
Greenbelt, Maryland, 20771
Reference: B65-10216

(continued overleaf)

Patent status: NASA encourages the immediate commercial use of this invention. Inquiries about obtaining rights for its commercial use may be made to NASA, Code AGP, Washington, D.C., 20546.

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(GSFC-347)